

# Jin-Yuan Qian

## List of Publications by Year in descending order

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94  
papers

1,711  
citations

236833

25  
h-index

315616

38  
g-index

95  
all docs

95  
docs citations

95  
times ranked

831  
citing authors

#	ARTICLE	IF	CITATIONS
1	A numerical investigation of the flow of nanofluids through a micro Tesla valve. Journal of Zhejiang University: Science A, 2019, 20, 50-60.	1.3	81
2	CFD analysis on the dynamic flow characteristics of the pilot-control globe valve. Energy Conversion and Management, 2014, 87, 220-226.	4.4	79
3	Effect of shear-induced aperture evolution on fluid flow in rock fractures. Computers and Geotechnics, 2019, 114, 103152.	2.3	77
4	Actuation Mechanism of Microvalves: A Review. Micromachines, 2020, 11, 172.	1.4	75
5	A numerical study of hydrogen leakage and diffusion in a hydrogen refueling station. International Journal of Hydrogen Energy, 2020, 45, 14428-14439.	3.8	65
6	Mach number and energy loss analysis inside multi-stage Tesla valves for hydrogen decompression. Energy, 2019, 179, 647-654.	4.5	61
7	Hydrogen decompression analysis by multi-stage Tesla valves for hydrogen fuel cell. International Journal of Hydrogen Energy, 2019, 44, 13666-13674.	3.8	61
8	Numerical analysis of flow and temperature characteristics in a high multi-stage pressure reducing valve for hydrogen refueling station. International Journal of Hydrogen Energy, 2016, 41, 5559-5570.	3.8	53
9	A comprehensive review on liquid-liquid two-phase flow in microchannel: flow pattern and mass transfer. Microfluidics and Nanofluidics, 2019, 23, 1.	1.0	49
10	Effect of valve core shapes on cavitation flow through a sleeve regulating valve. Journal of Zhejiang University: Science A, 2020, 21, 1-14.	1.3	49
11	Parametric study on Tesla valve with reverse flow for hydrogen decompression. International Journal of Hydrogen Energy, 2018, 43, 8888-8896.	3.8	48
12	Effects of pitch and corrugation depth on heat transfer characteristics in six-start spirally corrugated tube. International Journal of Heat and Mass Transfer, 2017, 108, 1011-1025.	2.5	46
13	Numerical simulation and structure improvement of double throttling in a high parameter pressure reducing valve. Journal of Zhejiang University: Science A, 2013, 14, 137-146.	1.3	38
14	Turbulent compressible flow analysis on multi-stage high pressure reducing valve. Flow Measurement and Instrumentation, 2018, 61, 26-37.	1.0	38
15	Co-generation of hydrogen and carbon aerosol from coalbed methane surrogate using rotating gliding arc plasma. Applied Energy, 2017, 195, 67-79.	5.1	36
16	Parametric analysis on throttling components of multi-stage high pressure reducing valve. Applied Thermal Engineering, 2018, 128, 1238-1248.	3.0	36
17	A Parametric Study of Hydrodynamic Cavitation Inside Globe Valves. Journal of Fluids Engineering, Transactions of the ASME, 2018, 140, .	0.8	35
18	Pressure analysis on two-step high pressure reducing system for hydrogen fuel cell electric vehicle. International Journal of Hydrogen Energy, 2017, 42, 11541-11552.	3.8	33

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19	Thermodynamic analysis of siphon flash evaporation desalination system using ocean thermal energy. Energy Conversion and Management, 2017, 136, 66-77.	4.4	32
20	A comprehensive review of cavitation in valves: mechanical heart valves and control valves. Bio-Design and Manufacturing, 2019, 2, 119-136.	3.9	31
21	Flow rate analysis of compressible superheated steam through pressure reducing valves. Energy, 2017, 135, 650-658.	4.5	30
22	Numerical analysis of flow and cavitation characteristics in a pilot-control globe valve with different valve core displacements. Journal of Zhejiang University: Science A, 2016, 17, 54-64.	1.3	29
23	CFD analysis on flow resistance characteristics of six-start spirally corrugated tube. International Journal of Heat and Mass Transfer, 2016, 103, 1198-1207.	2.5	28
24	A numerical study of unintended hydrogen release in a hydrogen refueling station. International Journal of Hydrogen Energy, 2020, 45, 20142-20152.	3.8	28
25	Mach number analysis on multi-stage perforated plates in high pressure reducing valve. Energy Conversion and Management, 2016, 119, 81-90.	4.4	26
26	Experimental and numerical analysis of spring stiffness on flow and valve core movement in pilot control globe valve. International Journal of Hydrogen Energy, 2017, 42, 17192-17201.	3.8	26
27	Parametric Study on Fluid Dynamics of Pilot-Control Angle Globe Valve. Journal of Fluids Engineering, Transactions of the ASME, 2018, 140, .	0.8	25
28	Aerodynamics analysis of superheated steam flow through multi-stage perforated plates. International Journal of Heat and Mass Transfer, 2019, 141, 48-57.	2.5	25
29	Valve core shapes analysis on flux through control valves in nuclear power plants. Nuclear Engineering and Technology, 2020, 52, 2173-2182.	1.1	25
30	Transmission loss analysis of thick perforated plates for valve contained pipelines. Energy Conversion and Management, 2016, 109, 86-93.	4.4	24
31	Effect of wind condition on unintended hydrogen release in a hydrogen refueling station. International Journal of Hydrogen Energy, 2021, 46, 5537-5547.	3.8	23
32	Numerical Simulation of Flow-Induced Noise in High Pressure Reducing Valve. PLoS ONE, 2015, 10, e0129050.	1.1	22
33	Thermohydraulic performance evaluation of multi-start spirally corrugated tubes. International Journal of Heat and Mass Transfer, 2020, 156, 119876.	2.5	21
34	Mixing efficiency and pressure drop analysis of liquid-liquid two phases flow in serpentine microchannels. Journal of Flow Chemistry, 2019, 9, 187-197.	1.2	20
35	Slug Formation Analysis of Liquid-Liquid Two-Phase Flow in T-Junction Microchannels. Journal of Thermal Science and Engineering Applications, 2019, 11, .	0.8	20
36	Effects of orifice on pressure difference in pilot-control globe valve by experimental and numerical methods. International Journal of Hydrogen Energy, 2016, 41, 18562-18570.	3.8	19

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37	Pressure Drop Analysis of Pilot-Control Globe Valve With Different Structural Parameters. Journal of Fluids Engineering, Transactions of the ASME, 2017, 139, .	0.8	18
38	Mixing Efficiency Analysis on Droplet Formation Process in Microchannels by Numerical Methods. Processes, 2019, 7, 33.	1.3	17
39	Fluid dynamic analysis of liquefied natural gas flow through a cryogenic ball valve in liquefied natural gas receiving stations. Energy, 2021, 226, 120376.	4.5	17
40	Cavitating Flow through a Micro-Orifice. Micromachines, 2019, 10, 191.	1.4	16
41	Deadzone compensation control based on detection of micro flow rate in pilot stage of proportional directional valve. ISA Transactions, 2019, 94, 234-245.	3.1	16
42	Thermo-mechanical stress and fatigue damage analysis on multi-stage high pressure reducing valve. Annals of Nuclear Energy, 2017, 110, 753-767.	0.9	15
43	Computational fluid dynamics analysis on orifice structure inside valve core of pilot-control angle globe valve. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2018, 232, 2419-2429.	1.1	14
44	Effects of throttling window on flow rate through feed-water valves. ISA Transactions, 2020, 104, 393-405.	3.1	14
45	Limit bending moment for pipes with two circumferential flaws under combined internal pressure and bending. International Journal of Mechanical Sciences, 2016, 106, 319-330.	3.6	13
46	Thermohydraulic analysis of hybrid smooth and spirally corrugated tubes. International Journal of Thermal Sciences, 2020, 158, 106520.	2.6	12
47	A geometric study on shell side heat transfer and flow resistance of a six-start spirally corrugated tube. Numerical Heat Transfer; Part A: Applications, 2018, 73, 565-582.	1.2	11
48	Internal Flow Analysis of a Heat Transfer Enhanced Tube with a Segmented Twisted Tape Insert. Energies, 2020, 13, 207.	1.6	11
49	Transient Study of Flow and Cavitation Inside a Bileaflet Mechanical Heart Valve. Applied Sciences (Switzerland), 2020, 10, 2548.	1.3	11
50	Effects of a Dynamic Injection Flow Rate on Slug Generation in a Cross-Junction Square Microchannel. Processes, 2019, 7, 765.	1.3	10
51	Heat Transfer Study of a Hybrid Smooth and Spirally Corrugated Tube. Heat Transfer Engineering, 2021, 42, 242-250.	1.2	9
52	Heat transfer analysis on dimple geometries and arrangements in dimple jacketed heat exchanger. International Journal of Numerical Methods for Heat and Fluid Flow, 2019, 29, 2775-2791.	1.6	8
53	Pilot Pipe and Damping Orifice Arrangements Analysis of a Pilot-Control Globe Valve. Journal of Fluids Engineering, Transactions of the ASME, 2020, 142, .	0.8	7
54	Fluid-Structure Interaction Analysis on Membrane Behavior of a Microfluidic Passive Valve. Membranes, 2020, 10, 300.	1.4	6

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55	A numerical study of heat transfer effects and aerodynamic noise reduction in superheated steam flow passing a temperature and pressure regulation valve. Numerical Heat Transfer; Part A: Applications, 2020, 77, 873-889.	1.2	6
56	Thermo-mechanical stress analysis of feed-water valves in nuclear power plants. Nuclear Engineering and Technology, 2022, 54, 849-859.	1.1	6
57	Transient analysis on pressure stabilization of spring linked two-stage perforated plates. Flow Measurement and Instrumentation, 2020, 72, 101692.	1.0	5
58	Research on the Optimal Design of a Pilot Valve Controlling Cut-Off Valve. Applied Mechanics and Materials, 2013, 331, 65-69.	0.2	4
59	Field synergy analysis of six starts spiral corrugated tube under high Reynolds number. Journal of Physics: Conference Series, 2016, 745, 032070.	0.3	4
60	Experimental analysis on filter press and energy consumption performance of diaphragm press drying device in chemical post-processing integrated equipment. Case Studies in Thermal Engineering, 2016, 7, 92-102.	2.8	4
61	Analysis of Fouling in Six-Start Spirally Corrugated Tubes. Heat Transfer Engineering, 2020, 41, 1885-1900.	1.2	4
62	Cavitation Suppression of Bileaflet Mechanical Heart Valves. Cardiovascular Engineering and Technology, 2020, 11, 783-794.	0.7	4
63	A parametric study on unbalanced moment of piston type valve core. Journal of Zhejiang University: Science A, 2021, 22, 265-276.	1.3	4
64	Modal and structural analysis on a main feed water regulating valve under different loading conditions. Annals of Nuclear Energy, 2021, 159, 108309.	0.9	4
65	Seal contact performance analysis of soft seals on high-pressure hydrogen charge valves. Journal of Zhejiang University: Science A, 2022, 23, 247-256.	1.3	4
66	Dynamic characteristics analysis of pilot valves with different inlet diameters installed on the main steam valve set. Case Studies in Thermal Engineering, 2022, 34, 102004.	2.8	4
67	Numerical Study on Flow Characteristics in High Multi-Stage Pressure Reducing Valve. , 2017, , .		3
68	Effects of Sleeve Parameters on Cavitation Control Performance in Steam Trap Valves. Journal of Fluids Engineering, Transactions of the ASME, 2022, 144, .	0.8	3
69	Dynamic response analysis of pilot control globe valve focusing on opening and closing time of pilot valve. Journal of Physics: Conference Series, 2016, 745, 032046.	0.3	2
70	CFD ANALYSIS ON PRESSURE DROP OF DIMPLE JACKETED HEAT EXCHANGER IN CHEMICAL POST-PROCESSING INTEGRATED EQUIPMENT. , 2015, , .		2
71	Energy Consumption Prediction of University Buildings in China and Strategies for Energy Efficiency Management. , 2015, , .		1
72	The Hydraulic Cavitation Affected by Nanoparticles in Nanofluids. Computation, 2018, 6, 44.	1.0	1

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73	Water-Silicone Oil Two-Phase Flow Hydrodynamics in a Square Glass Microchannel. , 2018, , .		1
74	Research laboratory for Smart Control Valves at Zhejiang University. Journal of Zhejiang University: Science A, 2019, 20, 229-232.	1.3	1
75	Flow dynamic analysis inside a sleeve regulating valve with different valve core shapes. , 2019, , .		1
76	Cooling Performance Analysis of Outside Fins of the Closed Circuit Axial Piston Transmission. Machines, 2021, 9, 17.	1.2	1
77	Transient Simulation on Unbalanced Torque of Piston Type Valve Cores During Dynamic Motion. , 2019, , .		1
78	Practice of flow control and smart valves. Journal of Zhejiang University: Science A, 2022, 23, 243-246.	1.3	1
79	Numerical Study on Pressure Difference of Valve Core in Vertical Pilot-Control Globe Valve. , 2017, , .		0
80	Effects of Inlet Arrangements on Liquid-Liquid Flow Patterns in Cross-Junction Square Microchannels. , 2017, , .		0
81	Heat transfer study on a hybrid smooth and spirally corrugated tube. MATEC Web of Conferences, 2018, 240, 01038.	0.1	0
82	Effects of nanoparticles on hydraulic cavitation. MATEC Web of Conferences, 2018, 240, 03004.	0.1	0
83	Water-Oil Flow in Square Microchannels With a Crossed Junction. , 2018, , .		0
84	Transient Simulation on Dynamic Motion of Mobile Perforated Plate in Two Stage Spring Linked Perforated Plates. , 2018, , .		0
85	New methods for projecting a 3D object onto a free-form surface. Engineering Computations, 2021, 38, 852-873.	0.7	0
86	Mechanism for wrapping fiber around the Y fork. Composite Structures, 2021, 275, 114480.	3.1	0
87	Effects of oil channels and oil flow rate on cooling performance of closed circuit axial piston transmission. Case Studies in Thermal Engineering, 2021, 28, 101375.	2.8	0
88	EFFECTS OF DIMPLE CONE ANGLES ON HEAT TRANSFER AND PRESSURE DROP IN A DIMPLE JACKETED HEAT EXCHANGER. , 2017, , .		0
89	PRESSURE FLUCTUATIONS OF LIQUID-LIQUID SLUG FLOW IN CROSS-JUNCTION SQUARE MICROCHANNELS. , 2018, , .		0
90	CFD ANALYSIS ON FLOW CHARACTERISTICS OF PERFORATED PLATE IN MULTI-STAGE HIGH PRESSURE REDUCING VALVE. , 2018, , .		0

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91	Fouling Analysis on Energy Dissipation Orifice Plates With Sediment Contained Water Flow. , 2018, , .		0
92	An Optimization Study on Cavitation Flow in a Steam Trap Valve. , 2019, , .		0
93	Fluid Dynamics Investigation on the Body Structure Inside a Sleeve Regulating Valve. , 2020, , .		0
94	Effect of sleeve orifices on flow performance and hydrodynamic noise in two-stage sleeve control valve. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 0, , 095440622210800.	1.1	0